# GRDC VIDEO or PODCAST TRANSCRIPT

**Emerging leader – Robert Harrison**

[00:00:12] **Hilary Sims** Hi there, I'm Hilary Sims. The GRDC Emerging Leader Award recognises the commitment of a professional with less than ten years experience in the grains industry. At the Perth GRDC update event in February 2024, Robert Harrison was presented with the Emerging Leader Award for his valuable work WA's legume and pasture agronomy space. Robert is a research scientist at the Department of Primary Industries and Regional Development (DPIRD) and Murdoch University. His career has focussed on nitrogen transformations of different legumes and seed ecology. He joined Murdoch University's Legume and rhizobium sciences team in 2016, and since then he's managed field and glasshouse experiments for national projects and co-authored multiple international research papers for CSIRO, DPIRD and Murdoch University. To kick off, I asked what sparked his interest in pastures. Here’s Robert.

[00:01:09] **Robert Harrison** Growing up in Wongan Hills, obviously I was encapsulated by farming from an early age. Both my parents were from farms and then just sort of fell into that area and worked on a few farms in Western Australia and also overseas as well. I was working on a dairy farm most of the time in North Yorkshire, and that was good hard work, and I suppose that's where I first got bitten by the bug of pastures, because they needed to have really productive pastures to be able to get that higher level of dairy production.

[00:01:41] **Hilary Sims** And was that interest in pastures there before university or did it come after?

[00:01:46] **Robert Harrison** Yeah, it's hard to say. With the chicken and the egg, I think. I'm not entirely sure actually what sparked the interest first. But obviously you look back now is that serendipity and yeah, you just fall into those right areas. I went to Curtin University and did environmental science and agriculture there, and then I did my honours at Murdoch University, then the centre for rhizobium studies.

[00:02:09] **Hilary Sims** And how did you decide that becoming a researcher was the pathway for you?

[00:02:14] **Robert Harrison** I'm not too sure. I think I'll probably, go towards research with more endeavour and intelligence. I don't think I really, was that sort of clever and that that applied myself to, to that much at university. But, I did have that endeavour afterwards that, that sort of carried through and then, yeah, you obviously get recognised and tapped on the shoulder to, to go further with your studies and then. Yeah, fell into research then.

[00:02:42] **Hilary Sims** And so what does a typical day in the office look like for you?

[00:02:46] **Robert Harrison** It's actually a really, really great job because you're not in the office all the time. You're in either the laboratory, the glasshouse or my favourite going out into the country and spending a bit of time with research on farm and dealing with the farmers.

[00:03:02] **Hilary Sims** And what is it about being on farm that you like most?

[00:03:04] **Robert Harrison** Definitely the conversations with the farmers. I definitely learn way more of them than they do off me, and that's just great to actually have that research on farm. You can go down rabbit holes and you can get sort of stuck in your lane a little bit, and I sort of encourage you to become more applied and broaden your horizons a little bit. So I think that's the best thing about it is actually just conversing with them.

[00:03:27] **Hilary Sims** Robert, what are some of the research projects that you've got underway at the moment?

[00:03:31] **Robert Harrison** We just got a new research project up through the West Australian Agricultural Research Collaboration and GRDC, and there's sort of multiple partners in that. And that's called HALO. So Harvestable Annual Legume Options. And that's got a number of outputs that can make us travel between Geraldton and Esperance.

[00:03:52] **Hilary Sims** And reflecting now on the collaborative nature of research, who have been some of your role models.

[00:03:58] **Robert Harrison** I also worked at CSIRO for a little bit as well, so I'll start with them. It is a bit of a G times E times M. There is a little bit in your genetics, but I think the environment does help a little bit. And Hayley Norman, she was great at CSIRO and still is a great confidant. And in the early days was Bread Nutt, Angela Loy and John Howeson and especially Ron Yates.

[00:04:22] **Hilary Sims** And what does it mean for you to be recognised with the GRDC Emerging Leader Award this year?

[00:04:28] **Robert Harrison** It's really humbling because when I was up on the stage you're looking around and there's a lot of young people in the room that also deserve the award as well. Lots of young women and men that are really pushing this industry forward. That's what makes it really exciting to work in ag at the moment.

[00:04:44] **Hilary Sims** And Robert, what's one thing about pasture legumes that you think all growers should know about?

[00:04:49] **Robert Harrison** I think it's definitely the whole systems benefit that they bring. And you don't have to have livestock in the system for them to be profitable, because most of the nitrogen stays there and isn't removed through harvest. So it's got weed control benefits, disease break benefits and all these other things. But I think there's a lot of nitrogen that they can start rebuilding these soils that we've been mining for so long, and we've got the harshest soils in the world, and I don't think a lot of international places realise how good our farmers are here to be able to use the amount of rainfall that we've got on these poor soils. And I think that pasture legumes and their nitrogen inputs are really exciting space.

[00:05:30] **Hilary Sims** Robert, looking to the future now, what work have you got coming up?

[00:05:34] **Robert Harrison** Well, I've recently just enrolled in a PhD and I'm really sort of interested, as I mentioned at the start, in seed ecology and carpology. So I think trying to identify the different times of germination, especially these pasture legumes so you can just seed them once and then you've got that bonus nitrogen bank on demand, and you can choose when it comes in and out of your rotation. That really interests me a lot. And also the farmer management practices that affect how these seeds germinate and how they release from their dormancy.

[00:06:08] **Hilary Sims** Fantastic. Well, Robert, thank you very much for speaking with us today and good luck with your PhD.

[00:06:13] **Robert Harrison** Oh, thank you very much.

[00:06:22] **Hilary Sims** That was DPIRD and Murdoch University research scientist Robert Harrison. More information can be found in the description box of this podcast or online at grdc.com.au. I'm Hilary Sims and you've been listening to a GRDC podcast.